

EAGLE LAKE MANAGEMENT UNIT
PUBLIC RESERVED LANDS SYSTEM

UNIT MANAGEMENT PLAN

MARCH 1990

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INTRODUCTION

This document is the first ten-year Plan for management of the Public Lands in the Townships of T16 R5 and T16 R6 WELS, the Eagle Lake Management Unit. It has been designed to meet the requirements for multiple-use management plans set forth in Title 12 M.R.S.A., Chapter 202-B, s_585, and is consistent with the Planning Policies adopted June 1985 and Integrated Resource Policies adopted December 1985 by the Bureau of Public Lands (The Bureau).

The purpose of this Plan is twofold. First and foremost, it is a commitment to the public, which owns these lands, that the lands will be managed well and in accordance with the law. As such, this Plan has been designed to be readily understood by all of the using public. In this Plan, the Bureau also commits to making significant changes only after providing opportunity for further public participation. Second, this Plan is a directive to the Bureau staff; it provides clear goals and direction for them to follow in fulfilling their responsibilities.

This is not a Plan of operations. It is written to permit professional managers to respond to current situations--to have a degree of flexibility as to how long-term goals should be accomplished. All detailed management decisions will undergo interdisciplinary review to ensure a well-balanced approach.

Because forest management objectives frequently require long periods of time to achieve, this Plan has been written broadly enough to be appropriate for many decades. However, the Bureau's policies call for a complete review and updating of this Plan every ten years to insure responsible management planning. Sections of the Plan will be updated as new information is processed.

The Bureau wishes to acknowledge the helpful participation of many Maine citizens and others in the development of this Plan. Through the assistance of the Public Advisory Group (listed in Appendix 2), and through the many comments received in response to the draft Plan, the Bureau has heard and incorporated many constructive suggestions from Maine people. We thank those persons for their assistance, and we appreciated the importance of their contributions. Continued public support will be needed to meet many of the goals and objectives outlined in this Plan.

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MAP#1

SECTION I CHARACTER OF THE LANDBASE

The 23,882 acre Eagle Lake Unit is located immediately east of the Town of Eagle Lake in northern Aroostook County. The unit consists of all of T16R6 (960 acres of original public lots, and 16,985 acres acquired in a 1984 trade with the Pingree heirs), 5,604 acres on T16R5 abutting T16R6 which will come to the State upon completion of a trade with Irving, and two original public lots on T16R5. These two lots, totalling 333 acres, are included in the Plan despite being two to three miles from the rest of the Unit. The smaller, northerly lot includes part of a registered critical area, and will be addressed within the special protection section. The other lot holds most BPL frontage on Square Lake, and will be covered under "Recreation".

Eagle Lake is the centerpiece of the Unit. This L-shaped water body extends onto two townships north to south and three townships east-west, with a total length of nearly 18 miles. More than half that length, and almost 3/4 of the lake's 5,581 acres, are located within Unit boundaries. On the portion outside the Unit there is heavy development (several hundred camps and year-round residences) covering most frontage, while within the Unit one finds an essentially undeveloped shoreline. Recreational use of the lake is similarly divided, with pleasure boaters and water-skiers concentrated off the Unit, anglers and campers most common on it. While this pattern is expected to continue, increases in recreational use on the developed end may result in some impact on traditional angler/camper use within the Unit as user numbers increase. Although Eagle Lake is the Unit's recreational focal point, other fisheries, most notably Blake Lake and the Eagle Lake-Square Lake thorofare (hereafter referred to as the Thorofare) also share in visitor use, along with fall hunting.

The land is gently rolling, less than 600 feet elevation change from highest to lowest, with gentle to moderate side slopes and small wet flats the characteristic features. Two exceptions are some steep slopes with small ledge outcrops in the northwest corner of T16R6, and a spruce flat/bog complex--approaching 1,000 acres in size--found on T16R5 between Square and Eagle Lakes. The Unit holds a wide diversity of forest types, a good mix of tree species and height classes, on relatively fertile forestland, most of which has seen two and occasionally three harvests since 1950.

SECTION II KEY MANAGEMENT CONCERNS

This Plan addresses the entire multiple-use management program for the Eagle Lake Unit. There are several major concerns which provide the principal focus for this Plan. Because of the nature of multiple-use management, the resolution of these concerns will be addressed throughout. The concerns and the primary discipline with which they are associated are as follows:

1. Special Protection

- a. Part of the Cross Lake Fen, a registered critical area, lies within the more northerly of the two small lots on T16R5.
- b. Due probably to fertile, low-acid soils, Eagle Lake was rated at the top of Bureau consolidated Units for possible rare or endangered plants in a 1987 assessment done by The

Nature Conservancy. More detailed on-the-ground assessment needs to be done, using both Bureau staff and outside specialists.

2. Wildlife

a. Though at present there are no zoned deer wintering areas on the Unit, historical deer use and areas with soil types favoring softwood provide the opportunity to increase the area suitable for winter cover.

b. The Unit contains part of the Fish River Chain of Lakes, well known for their coldwater fishery. Management of this fishery is the responsibility of the Department of Inland Fisheries and Wildlife (DIF&W), and the Bureau will cooperate in this management, providing information and assistance as appropriate.

c. Baiting for bear is heavy on T16R6 north of the lake, with conflict over bait sites a possibility.

3. Recreation

a. The undeveloped nature of the Eagle Lake shoreline within the Unit gives it a semi-remote character, while heavy use of most water-access campsites suggests increasing demand for this type of experience. Increasing boat-access camping while maintaining an undeveloped lakeshore will be a challenge in managing the Unit.

b. Blake Lake is a 128 acre water body which offers a fishery for wild brook trout in a natural setting. Access over two miles of rough 4-wheel drive road has kept fishing pressure at moderate levels, though the campsite there is used frequently. Keeping the access relatively difficult will maintain the semi-remote, backcountry nature of this trout pond.

4. Visual Consideration

The scenic quality of the Unit, especially as viewed from Eagle Lake and Blake Lake, is an important resource. Any management activities in these visual areas, especially timber harvesting and road construction, must take into account its appearance from the water.

5. Timber

a. Past harvesting plus budworm damage has left a diverse but somewhat fragmented forest. Lacking are sizable areas of tall, fully-stocked softwood to serve as winter cover and travel corridors for deer. Also, some sites more suited to softwoods are presently occupied by low-quality hardwoods.

b. The fertile soils found over most of the Unit and the widespread presence of 5-20 foot tall spruce-fir regeneration present challenges and opportunities for careful overstory harvests, and subsequent precommercial thinning.

c. Like most lands in northern Maine, this Unit has a sizable volume of low-quality hardwoods which were left after past harvests due to lack of markets. The hardwood markets are improving, but difficulty in moving this low-grade material remains.

6. Transportation

a. All access to the Unit requires crossing private land, with some important routes requiring up to 13 miles across abutting landowners. Securing formalized road-use agreements or public road frontage for the unit is important in ensuring management and/or recreational access.

b. The road system within the Unit is largely in place, although considerable reconstruction will be necessary in places. These roads will be improved and maintained only when needed for management access, though most will remain open but unmaintained at other times.

SECTION III RESOURCE ALLOCATION

The Bureau's multiple-use management system is based on the allocation of areas for specific uses. Because of the nature of multiple-use management, these areas may overlap, creating zones where management is designed to accommodate a variety of uses. In such areas, the objectives for each type of use will be defined within the Plan. In order to avoid conflicts, a dominant use will be identified; this dominant use will normally take priority over all other uses, which become subordinate uses. Where a use is planned to be subordinate, it will be managed to the greatest extent possible without negatively affecting the dominant use.

The dominant use will typically be determined according to the level of sensitivity. In other words, the use which requires the more careful management will dominate. The following list indicates the priority sequence for establishing dominant use.

1. Special Protection

Habitat for rare plants, some areas of old-growth forests, rare and endangered animal species habitat, important historic sites, other areas of special concern.

2. Backcountry

Large areas containing outstanding natural resource characteristics, managed for remote recreation and characterized by no public vehicular access (excepting snowmobiles).

3. Wildlife Management - Wetlands, riparian zones, deeryards, and special habitats.

4. Remote Recreation

Areas managed for low intensity recreation, containing significant natural resource values, and characterized by no public vehicular access (excepting snowmobiles).

5. General Recreation - Campsites, boatlaunches, picnic areas, and areas of more intensive public use, where vehicle access is normally allowed.

6. Visual Zones - Areas where recreation will not occur directly as in backcountry and general recreation zones, but where management activities could adversely affect visual enjoyment, (e.g. corridors along access roads; slopes on the other side of a pond from a campsite).

7. Timber - Where no other zone has been applied, as long as it is suitable for timber production under the Bureau's general timber management standards.

The maps in the following sections describe the use areas according to wildlife and special protection, recreation and visual concern, timber, and transportation. No single map of dominant use areas is provided, as the many--often overlapping areas appear confusing. Dominant use areas are established, however, and integration requirements must be understood according to the above priority list.

SECTION IV RESOURCE MANAGEMENT AND COORDINATION

In this section, management for each type of use will be described, and maps will show the areas defined for those uses. It is important for the reader to keep in mind that a particular acre is typically used for more than one purpose during the same time period. In such cases, the dominant use will be determined by priority as explained in Section III.

The areas delineated on the maps are subject to only minor adjustment by Bureau personnel without formal changes in this Plan. For each section of the Plan, appropriate management actions will be described for each use as if it was the dominant use. Where the use is a subordinate use (for example, timber management within a riparian zone), management will be modified to accommodate the requirements of the dominant use. For convenience in this Plan, management actions will be described in the following sequence: Special Protection, Wildlife, Recreation, Visual Consideration, Timber, Transportation, and Special Uses.

A. SPECIAL PROTECTION (Refer to Map #2)

1. Description of the Resource

Bureau policy defines special protection resources as particularly unusual and important areas in need of protection from disturbance. These areas include habitat for rare plants or animals, certain areas of old-growth forest, rare geologic formations, and important historic sites. The Maine Critical Areas Program, within the State Planning Office, maintains a critical areas register. They define critical areas as "natural features of unusual natural, scenic, scientific, historical significance from a statewide perspective." Critical areas are included within the Bureau's special protection category.

A portion of Cross Lake Fen, critical area #601, lies within the more northerly of the two small public lots on T16 R5. See map #2 and appendix 3. Only about 35 of the Fen's 503 acres are

on the unit, but this is nearly 1/2 of the 83 acre parcel. Four rare plant species have been discovered within the Fen. Though their presence on the Bureau-managed portion is not documented, this area will receive special protection to ensure that none will be lost due to inappropriate activity.

The remainder of the 83 acre public lot is wet-site black spruce. Although it has been harvested in the past, this low-productivity forest will be withheld from timber management in order to ensure protection of the adjacent critical area.

In 1987 the Bureau contracted with The Nature Conservancy (TNC) to assess each of 20 consolidated units on Public Reserved Lands. Using documented rare plant stations, soils and geology data, and other pertinent information, TNC's Natural Heritage Program (now with Maine's Department of Economic and Community Development) indicated that the Eagle Lake Unit was most likely of the 20 parcels to contain rare and endangered plants. Though none have yet been identified on the Unit outside Cross Lake Fen, the TNC report points toward the need for a field assessment. In 1989 the Bureau contracted with a botanist to spend several weeks on the Unit looking at the most likely sites for rare plants, with dual goals of identifying significant plant stations and determining whether continued effort is warranted. Other specialists, from Critical Areas and the University of Maine among others, will be encouraged to work at increasing our knowledge of the Unit's special plant and animal populations.

Old-growth forest of any magnitude is unlikely to be found on the Unit due to non-restrictive terrain and history of active timber harvest. Occasional very old trees are found scattered across the area north of Eagle Lake. These trees, chiefly hemlock, are usually a minor component within a much younger stand, so that the ecological conditions characteristic of old-growth are not present. However, a rough ledge area northeast of Blake Lake has been found to hold mostly large hemlock and spruce, with occasional pine and sugar maple. This stand, about 15 acres, shows almost no signs of man-caused disturbance, and will be set apart as an old-growth preserve. Upon more detailed examination it may also be nominated for Critical Area status.

Other unique areas in the Unit's forest are several acres of large red oak at the aptly-named Oak Point, some 30 acres of bottomland hardwoods at the mouth of the Fish River, and an osprey nest in the Three Brook Cove area. The bottomland contains large hardwoods, mostly brown ash but with elm and probably silver maple as minor components. These last two, along with oak, are somewhat uncommon this far north.

2. Dominant Use

Special Protection areas contain some of the more fragile and/or unusual features of the Public Lands resource base. Management of these areas will be protective in nature, keeping them intact, and available for scientific research and public enjoyment where these activities won't endanger the protected resource.

As mentioned above, the Public Lands portion of the Cross Lake Fen will be set aside from active intervention, as will the remainder of that 83 acre lot. The Oak Point area contains a water-access campsite which has received considerable use for decades with no apparent harm

to the oaks. Red oak is a mid-successional species unlikely to persist without management (or wildfire). The management likely will consist of no more than hand-planting acorns from the irregular seed crops, if oak seedlings are not already present. The bottomland hardwoods require no active management for their protection. The area surrounding the osprey nest will be managed according to DIF & W guidelines.

During the normal course of field assessment (compartment examinations), the Bureau will identify resources in potential need of special protection. Particular attention will be paid to potential old-growth stands and the numerous small bogs. Any areas or resources meriting special protection, whether discovered by Bureau foresters, Critical Areas personnel, or others, will be incorporated into this program, and this Plan will be updated accordingly. Also, the Bureau will work closely with DIF&W to identify any great blue heron, loon, bald eagle, or other important bird species nesting sites on the Unit. If additional ones are located, the Bureau will follow the guidelines prepared by the DIF&W endangered and non-game species program.

3. Secondary Use

The Oak Point campsite will continue to be managed as such; intensity of use and impact on the oaks will be monitored to ensure protection of this unusual area. The bottomland hardwood stands are already being used extensively by cavity nesters, and hence are a prime wildlife area. The possibility of installing duck boxes in this area will be explored. These would be fastened to snags and should have no impact on living trees.

Secondary uses of any special protection areas identified in the future will be determined on a case-by-case basis. Only those with no adverse impact will be allowed.

MAP #2

B. WILDLIFE (Refer to Map #2)

Upland wildlife habitat on the unit is diverse both in vegetation species mix and varying tree heights. This diversity is mostly due to the forest's history of frequent light harvests, and is aided by the fertile soil. Mixedwood stands cover almost 50% of the unit, and most stands are between 25 and 100 acres, a good size range for many species of wildlife. Numerous brooks and beaver flowages add to the mix of available habitat.

Some vegetation types or species are at lower than optimum levels. Stands dominated by trees under 30 feet tall are frequent but usually quite small except around the major bog complex on T16R5. Stands with most trees under 10 feet in height are uncommon, apart from a 1986 blowdown on T16,R6, and open land is found only in roads and log yards, and one small field near the west line of T16R6. Sizable areas in softwoods suitable for deer winter shelter are also less common than desirable, due to past cuts, and to a greater extent, budworm mortality. Beech, the major source of mast (nuts), has sustained heavy damage and mortality from the beech bark disease over the past 20 years. Healthy beech at least 16 inches in diameter, the greatest mast producers, are in short supply over most of the unit.

Populations of upland game species are generally good, and are remaining that way in the face of considerable hunting pressure north of Eagle Lake. Ruffed grouse, deer, moose, bear, and to a lesser extent snowshoe hare are all sought by sizable numbers of hunters each fall. Several area guides utilize the unit's forests for their clients' enjoyment. Due to the broad diversity of vegetation types on the unit, habitat requirements are also met for many non-game species.

No deer wintering areas are currently zoned on the unit; an interim deeryard along the lower end of the Thorofare had the zoning dropped six years ago as a result of minimal deer use, budworm damage, and heavy salvage cuts. There is also record of past deer winter use along Bear Brook, although cutting near it during the past two winters failed to attract much deer feeding on the fresh tops. Several other potential areas for deer winter cover have seen that cover compromised to greater or lesser degree by the budworm; Halfway, Alec, and Miller Brooks among them. There is also considerable softwood in the Three Brooks area, though a 1989 overflight failed to reveal deer use. Moose, however, appear to yard in several areas, often choosing stands with numerous budworm openings. Abundant moose tracks and evidence of browsing have been found along Halfway Brook and its tributaries, and on parts of Miller Brook.

Riparian areas managed by the Bureau are 330-foot-wide margins of habitat adjacent to lakes, ponds, and wetlands, and along each side of most watercourses. Along the minor brooks the riparian zone is 75 feet each side. This area is of great importance to most wildlife species, being utilized for protection, food, water access, and travel routes.

Diversity of wetland types is reasonably good despite the small total area, three percent of the Unit, in wetland habitat. Large wetlands are found in only two spots; the bog between Eagle and Square Lakes, and a smaller (40 acre) bog south of Eagle Lake. However, two-to-ten acre bog areas are frequent, especially south of Eagle Lake, and the abundant beaver flowages, both active and inactive, provide substantial waterfowl habitat. Other wetlands benefits include groundwater

storage, stabilization of surface water, erosion control, and important habitat for many other wildlife species.

The following table gives some characteristics of the three water bodies which have been discussed in this plan: Blake Lake, which lies wholly within the Unit, Eagle Lake, with some 20 miles of frontage in the Unit, and Square Lake, where the Bureau manages only some 3/4 mile of shoreline.

POND NAME	SIZE (ACRES)	MAXIMUM DEPTH (FEET)	PRINCIPAL FISHERY
Blake Lake	128	17	Brook Trout
Eagle Lake	5,581	136	Salmon, Togue, Brook Trout
Square Lake	8,150	122	Salmon, Brook Trout

Blake Lake supports wild brook trout, several species of minnows, and cusk. Despite the relatively shallow water and uniform temperatures throughout during the summer, the trout population is sustained through hot weather by good supplies of cold spring water. The inlets and outlets are relatively unimportant for trout spawning, most taking place near the lake shoreline and in spring areas.

Eagle Lake offers a varied coldwater fishery for trout, salmon, togue, cusk, and smelt. Spawning habitat is available in the outlet and many inlets, with the Thorofare an important salmon spawning and nursery area. Many of the smaller inlets, however, are blocked near their mouths by beaver dams (some inactive) which limit the available spawning area. This may be especially limiting for smelt, which are valuable as the major forage fish for the larger gamefish species, and as a sport fishery as well. Other major species found in Eagle Lake include yellow perch, hornpout, suckers, and minnows.

Square Lake, the largest of the Fish River chain of lakes, provides ideal habitat for salmon and brook trout, having suitable spawning areas for each species. In particular, the lake's inlet from Cross Lake and its Outlet, the Thorofare, provide the primary salmon spawning and nursery areas. For the most part, Square Lake supports the same fish species as Eagle Lake. Although an occasional togue may be caught in Square Lake, they are not present in numbers sufficient to support a principal sport fishery.

2. Dominant Use

a. Upland Forests

These areas will be managed to maintain and enhance habitat diversity, as set forth in the Bureau's "Wildlife Guidelines". This includes maintaining much of the current forest stand sizes, 25 to 100 acres, and retaining occasional well-distributed large old trees for dens, among other requirements. Although no areas within the Unit are currently zoned as deer wintering areas, historical deer use makes it likely that, given suitable cover, the deer will resume winter use on the Unit. The Bureau goal for identified deer wintering areas is to maintain at least 50% of the forest acres in high quality cover at any one time, while regenerating the remainder to softwood for future cover. Any timber harvesting in such areas will be designed to create a distribution of tree age classes, develop beneficial edge effects, and otherwise provide long-term quality deer wintering habitat. This will be the Bureau objective on those areas of historical deer winter use, and any other areas found to be providing significant winter cover. All management decisions affecting potential deer wintering areas will be coordinated with the staff wildlife biologist and with DIF&W.

b. Riparian Areas

The three major goals of riparian area management are:

1. Maintain vegetative diversity, both in terms of height and species types.
2. Maintain continuity of travel cover for wildlife throughout the watershed and adjoining ecosystems.
3. Protect adjacent aquatic environments from degradation.

The shores of all ponds and major streams, and margins surrounding wetlands, are designated as 330-foot-wide riparian areas. Shorelands of all other streams will be managed as 150-foot-wide (75 feet each side) riparian areas, reflecting the lower level of use these shorelands receive. Riparian areas are subject to active timber harvesting (selection removals) to enhance habitat diversity in terms of vegetative age-class and species. All riparian area management activities will be coordinated with the staff wildlife biologist and the DIF&W.

c. Waterfowl

Currently there are no duck boxes on the Unit. Several areas are both suitable habitat and accessible. These include the mouth of Fish River (if natural cavities are not already sufficient) and the mouths of Alec, Black, and First Brooks. Halfway Pond provides ideal habitat but would be difficult to access for maintenance. Any duck boxes installed will be monitored and cleaned annually, to check use levels and possible need for additional boxes. It is expected that riparian

area management will eventually provide these sites naturally, through the retention of large, old trees.

Loons are ground nesters; if any loon nest sites are located, the sites will be mapped and management decisions will allow for the species' sensitivity at nesting time. Public information and habitat protection will be the primary management tools for loons.

d. Eagles and Ospreys

There is an active osprey nest just inland from three Brooks cove, and Bald Eagles have been sighted on the Unit although they are not known to nest there. Management in the vicinity of osprey or eagle nests will be done according to protective buffer zones established by DIF&W. Where tall (80 ft.) pines are part of the stand, some will be retained--especially in riparian zones--as potential perch or nest trees.

e. Fisheries

All of the open water on the Unit, other than that in special protection, is allocated for wildlife. DIF&W regulates and manages boating and fishing in Maine's inland waters, and is intensively managing the Unit's lakes for coldwater species (brook trout, salmon, togue, smelt, cusk). Management will require coordination between the Bureau and DIF&W, and will include periodic monitoring of the fisheries resource to help ensure that it remains productive.

Beaver dams on many tributaries of Eagle Lake may be restricting spawning of smelt. The Bureau will coordinate with fisheries biologists and local wardens to remove inactive dams where that is likely to increase spawning habitat.

The Bureau will also not improve access to Blake Lake, which will help ensure retention of a wild brook trout fishery in a natural setting.

3. Secondary Use

Recreation and timber management are important secondary uses in most wildlife dominant areas. A diversity of wildlife species, balanced population levels, and healthy individuals are among the benefits of sound wildlife management. Timber harvesting is one of the key management tools for upland habitat enhancement and maintenance. While harvesting in these areas will be incorporated within the Bureau's timber program, it will primarily be designed for specific wildlife benefits.

Recreational use of wildlife dominant areas will typically be hunting, trapping, fishing, and sight-seeing. Normal DIF&W regulations will apply for all wildlife areas on the Unit.

B1. Wildlife Management of All Other Areas

Throughout the non-wildlife dominant areas of the Unit, wildlife habitat will be managed under the general guidelines for forest management activities. These guidelines are described in the

Bureau's "Integrated Resource Policies" and "Wildlife Guidelines", and include requirements to create and maintain diversity of vegetation, to preserve den trees and snags for wildlife, and for the staff wildlife biologist to make specific recommendations for wildlife habitat improvements as he identifies opportunities. Coordination with DIF&W will be continued regarding all wildlife management activities.

C. Recreation (Refer to Maps 3 and 4)

Recreation management on the Public Reserved Lands is typically rustic in nature and falls into three broad categories: (1) backcountry, (2) remote recreation, and (3) general recreation--(See Section III, Resource Allocation). Backcountry areas are defined in Bureau policy as being relatively large in size and extraordinary in terms of scenic quality, remoteness, and natural characteristics. These areas are managed for backcountry recreation as the dominant use, characterized by no public vehicular access (with the exception of snowmobiles), and low density--dispersed use which retains the natural character of the area. Due to land character and historic use patterns, there are no areas on the unit suitable for backcountry designation. Remote recreation areas may be somewhat smaller in size and contain less extraordinary natural resource features than backcountry areas. These areas do not contain public use roads and offer excellent low density, dispersed-use recreation opportunities. Integrating secondary uses in a remote recreation area is less restrictive than doing so in a backcountry. General recreation areas are rustic in nature, yet are typically more developed than backcountry or remote recreation areas. General recreation areas are characterized by allowing for public vehicular use, and are exemplified by picnic areas, boat launches, and campsites served by a road.

MAP #3

C1. Remote Recreation

1. Description of the Resource

The undeveloped nature of the State frontage on Eagle and Square Lakes is a large part of the Unit's attractiveness. This area's riparian zoning, with the added provision that recreational access will be on foot or by water, will provide adequate protection under the Remote Recreation category. Except on Eagle Lake's east end, and at the camplot lease adjacent to the town of Eagle Lake, gravel road access remains 1/4 mile or more back from the shoreline, so that access to the shoreline within the Unit requires watercraft or bushwacking through the woods. The exception to this, at the east end, is where the Square Lake Road lies 300-500 feet back from the shoreline for nearly a mile of the road's length. Two spots along this length have been providing boat access to Eagle Lake, with some boats being trailered in. Recreation facilities within this Unit's riparian zones include five boat-access campsites on Eagle Lake, three along the Thorofare, and a site at Blake Lake.

Most of the Square Lake frontage, nearly 3/4 of a mile extending from just west of Rocky Point eastward nearly to the thorofare from Cross Lake, is located on the larger of the two original public lots. Although much of this shoreline is wet, Rocky Point is suitable for a boat-access campsite, which should be located at the old Maine Forest Service campsite on the small knoll behind the point. Access to this tract involves eight miles of road across two private landowners, and passes right by Burnt Landing, a former Maine Forest Service campsite and boatlaunch two miles northwest of the lot. The uplands of this lot will be managed for timber, with visual concerns dominant where appropriate.

MAP #4

Another remote recreation area will center upon Blake Lake. This waterbody is currently reached only by a rough two miles of four-wheel-drive road, or on foot. The lake provides fishing for wild brook trout in an undisturbed setting kept somewhat remote due to difficulty in getting there. The backcountry zone will be that area within 1/4 mile of the shore of Blake Lake.

2. Dominant Use

The dominant use in a remote recreation area is recreational activity in a remote to semi-remote setting. Any developed facilities will be rustic in nature. Management of the remote recreation areas on the Unit will focus on the opportunities for camping, fishing, and canoeing in a natural setting.

The Eagle Lake shoreland sites are fire-safe authorized sites, no fire permit necessary. All the other sites require permits from the Maine Forest Service for use of open campfires. Camping on Public Reserved Lands is not limited to authorized or permit campsites, but use of fire at other sites must be restricted to self-contained stoves. The developed campsites include a firering, rustic picnic table, and privy toilet.

Campsites on Eagle Lake currently receive heavy use, except the most recently (1987) developed one in Three Brooks Cove. This, along with the incidence of camping elsewhere on the lake, point to the need for additional water-access sites. New sites will be established during the planning period, at a rate no more than one or two per year, possibly reaching 10 or 12 in total on Eagle Lake. These additional sites will mostly be on the north shore, as this side of the lake is better sheltered from the prevailing winds, and has more suitable soils. No additional campsites are planned for the Thorofare or Blake Lake; Rocky Point on Square Lake will be upgraded to be either a fire permit or fire-safe (authorized) site. Campsites will be located to avoid disturbance of loon nesting sites.

With the availability of hard-surfaced boatlaunch facilities, both public and private, on Eagle Lake west of the unit, no additional developed launches are planned. One informal launch site at the east end of Eagle Lake will be blocked off and made unusable, as it involves traversing 200 feet of deeply-rutted trail through a cedar swamp. The second such site, on firmer and more stable soils, will have the old road blocked off near the Square Lake Road, leaving a small parking area for those wishing to hand-launch small watercraft.

At Blake Lake, the fire-permit campsite on the west shore will be maintained as at present. As vehicle access (other than by snowmobile) by the public becomes increasingly difficult due to the current road getting rougher and more grown-in by vegetation, a parking area outside the zone and foot trail will be developed.

Other Uses: Snowmobiling is a very popular recreational use of the Unit, with some 10 miles of trails in the northwest part of the Unit being well-maintained by local snowmobile clubs. In addition, snowmobilers use many of the old logging roads, especially on T16R6 north of Eagle Lake, where timber harvesting has nearly always been in summer, leaving the roads unplowed

and available for winter recreational use. The Bureau has a lease covering the groomed trails; the other, informal snowmobile routes don't require leasing. There is a small warming hut, left behind years ago by a logging contractor and adapted for snowmobilers, near Halfway Pond. The local clubs will be asked whether they wish to continue using this building, and if so, it will be included as part of the trail lease.

Hunting is also an important use throughout the Unit. The land sees considerable use from people living nearby, and the presence of several guiding services in the general area ensures use by hunters from farther away. Local use is heaviest north of Eagle Lake and on parts of T16R5 due to the many gravel roads; the guide services hunt north and south of the lake. Even with the overall increase in use, the hunting experience south of Eagle Lake remains semi-remote, as access usually requires a boat, or considerable walking. Baiting for bears has increased greatly in recent years, with most done north of Eagle Lake. In 1988 North Maine Woods, which handles recreation management for most of the lands west of Route 11, instituted a fee system for bear baits; as the Unit is quite close to NMW land, many baiters evidently are switching over to areas where no fee is required. State law requires that those placing baits also have identification at the site. This regulation is relatively new, and compliance within the Unit is low.

Other recreational uses characteristic of remote recreation, such as hiking and cross-country skiing, take place only occasionally on the Unit. Most current "hiking" involves walking in to reach hunting or fishing destinations. In 1987 a 1/2 mile trail along the west Unit boundary was constructed to reach a scenic overlook. A second trail, starting in Three Brooks Cove and proceeding onto private ownership to reach Three Brooks Mountain was constructed under the Maine Aspire Program in 1989. The level of use on these trails will help in evaluating demand for this type of experience.

3. Secondary Use

Timber and wildlife management are both secondary uses in a remote recreation area. While secondary uses will be modified to retain semi-remote recreation values, the modifications will not be as restrictive as in a backcountry. This integration of uses will allow for more precise management of the secondary uses, while maintaining relatively natural conditions for a high-quality recreational experience.

C3. General Recreation

1. Description of the Resource

General recreation areas are defined in Bureau policy as having somewhat more highly developed facilities than remote recreation or backcountry areas, allowing for more intensive use--such as vehicle-accessed campsites, picnic areas, and boatlaunches. As presently planned, the Eagle Lake Unit has no areas which meet this general description; the hand-carry launch proposed for retention near the east end of Eagle Lake is more appropriately included in the remote recreation discussion. If future decisions include development more compatible with general recreation, this Plan will be revised to include the changes.

2. Dominant Use

The typical uses in a general recreation area are those associated with vehicular access. Although still somewhat rustic, facilities here are more developed than in the backcountry, more users are expected, and vehicle access is normally allowed.

D. VISUAL CONSIDERATION (Refer to Map #3)

1. Description of the Resource

The scenic quality of this Unit is especially important for the purposes of public use and enjoyment. Areas allocated for visual consideration are those where any management activities will be planned with maintenance of scenic quality being a major objective.

Visual Consideration areas on the Eagle Lake Unit are those as seen from Eagle and Blake Lakes, the Thorofare, the Square Lake Road, and the "West Overlook"--the destination of the 1987 hiking trail. On Eagle Lake and the Thorofare, this corresponds to the remote recreation area, with the addition of two hillsides facing the east end of the lake. At Blake Lake, only a portion of the remote recreation area is visually significant from the lake. This includes the riparian area and the hillsides to the west and northwest. The sensitive viewshed from the west overlook extends south and southeast about 1/2 mile from the north end of the trail. Additional visual consideration area related to the new Three Brooks Mountain trail will only need to include the trailside buffer, as this trail provides no up-close view of other areas of the unit.

2. Dominant Use

Intangible values of scenic quality such as natural beauty, diversity, and contrast, constitute the dominant use of visual consideration areas. Areas allocated for dominant uses other than timber--such as special protection or backcountry--do not need visual consideration designation on maps, as this value is largely accounted for in the more restrictive management guidelines.

Visual management is the responsibility of the staff recreation specialist who will integrate visual considerations where timber harvesting, road development, or related activities fall within visual areas.

E. TIMBER (Refer to Map #5)

1. Description of the Resource

The forests on this Unit have been harvested on virtually every acre during the past 30 years, with many acres harvested twice and some three times. Most harvests were of light intensity, often using the diameter limit method. To some extent the cutting was constrained by lack of pulp markets, especially for hardwoods. The resulting stands show a wide diversity of tree species, and a distribution of different-height trees as good as any Unit on Public Lands. The

height classes in most limited supply are the very shortest, 0-10 feet and 10-30 feet. The intensive harvesting which creates

MAP #5

these types of stands was limited to a couple hundred acres of spruce budworm salvage 5-10 years ago on T16 R6, and clearcuts done in spruce stands on T16 R5 in the early '70's. These latter total over 300 acres, some south of Eagle Lake but most in the area just west of the large bog between Eagle Lake and Square Lake. Though these sites are of moderately poor drainage, the presence of 18 inch diameter spruce stumps and scattered 90 foot tall residual pines indicate sufficient fertility to invest in precommercial thinning on the better sites within this area.

The largest forest opening is catastrophic in origin, the result of a blowdown in September 1986. This thunderstorm downdraft (or possible tornado) touched down about a mile north of the mouth of the Thorofare and continued northeast almost four miles to the north end of Square Lake, gradually widening from 500 feet to nearly 1/2 mile as it went. Within the affected 600 acres (half on the Unit, half on an abutter) destruction was virtually 100%, both in softwoods and in the more deeply rooted hardwoods. Most of this area had adequate seedlings in the understory, so following salvage of most of the blown-down trees, the new stands are generally in place.

Mixedwood is by far the dominant forest type. Softwood and hardwood stands generally are found as discreet pockets, along streams or on high ground, respectively, surrounded by mixedwood acreage. The natural fertility of most soils on the Unit means that nearly all the forest is on productive land where regular timber harvests are practical, within the limits of other resource values. The breakdown of broad forest types is as follows:

	<u>T16 R6</u>	<u>T16 R5</u>	<u>UNIT</u>
Softwood 27%	60%	35%	
Mixedwood 55%	26%	48%	
Hardwood <u>18%</u>	<u>14%</u>	<u>17%</u>	
	100%	100%	100%

Some of the mixedwood stands are found on land where limited drainage and moderate fertility are more suited to growing softwoods; the hardwood component of these stands is present due to preferential harvest of softwoods in the past, budworm mortality on fir, or the hardwood species' natural advantage in height growth right after disturbance.

Timber volume, as measured in an inventory done in 1984, is almost evenly split between softwood species and hardwoods. By species, the mix is as follows:

<u>SOFTWOODS</u>		<u>HARDWOODS</u>	
Balsam Fir	18%	Red Maple	13%
Spruce	18%	Sugar Maple	12%
Cedar	11%	Popple	8%
Hemlock	3%	Yellow Birch	6%
Pine	1%	Beech	5%
Tamarack	<1%	White Birch	4%
		Ash, Hornbeam	1%
TOTAL	51%		49%

Although occasional very large trees may be encountered, typically sugar maple or hemlock, and some stands are dominated by mature to overmature trees, the characteristic stand has a wide range of stem diameters present. The Unit-wide average diameter (for all "merchantable" trees--those 5 inches diameter and larger) is 8 inches for softwood and 9 for hardwood. The average for balsam fir is only 7 inches. These diameters are smaller than on most other parcels managed by the Bureau, and reflect on substantial numbers of trees in the 5 to 7 inch diameter classes. Rather than being suppressed by taller trees, these pole-sized individuals are typically vigorous and growing well, though occasionally quite densely stocked. This excellent representation of mid-sized and aged trees presents ample opportunity for commercial thinnings and for producing high-value forest products. In addition, most stands have good representation in the sapling size class, trees 1 to 4 inches in diameter, and in seedlings, trees smaller than an inch in diameter.

Over the whole range of diameter classes, trees are generally healthy and vigorous. Spruce budworm has caused considerable mortality on fir, especially in the Halfway Brook--California Brook drainages, but surviving fir has generally made a complete recovery. In some stands much of the fir is mature, with butt rot and scattered blowdown evident. The white pine found on the Unit shows a high incidence of blister rust, so that harvesting has often taken pine trees with dead tops that otherwise would have been retained for further growth. The average quality among softwoods is fair on larger stems, and good to excellent on small to medium sized ones (5-10 inch fir, 5-15 inch other softwoods).

In hardwoods the overall quality is lower than for softwoods, typical of areas where historic markets have been for sawlogs only. In addition, beech bark disease has caused considerable damage and mortality in that species, to the point where any clean-barked, healthy beech merit

retention for mast production. Most of the better-drained sites hold sapling/pole-sized hardwoods of good form, typically sugar maple, among large old residuals of past cuts.

2. Dominant Use

Where timber production is the dominant or strong secondary use, the management goal will be production of high-quality forest products, typically sawlogs and veneer, of the species best suited to particular site conditions. This will be done using sound silvicultural practices, allowing for non-timber resource values as specified in the Bureau's Integrated Resource Policy. Harvesting will be done on a sustained yield basis--a level of timber removals at or below that which can be sustained without depleting the resource over time. Broad timber management goals for the Eagle Lake Unit are:

- Improving quality, especially in hardwoods.
- Increasing amounts of softwood on those sites best suited for these species.
- Promoting stands of softwood with sufficient canopy density, tree height, and stand size to be suitable for deer winter use.
- Developing high-quality young stands through intensive management of the abundant natural regeneration.
- Maintaining the species and tree height diversities.

To meet these goals, management activities during the ten-year planning period will be directed toward the following:

a. Harvests in all stands will concentrate on removing the poorest quality stems, consistent with the den tree and dead tree requirements of wildlife. In mixedwood and hardwood stands this will require extra effort in marketing low-quality hardwood products. Outlets for this material are improving, principally for stovewood and for poplar products. Moving large quantities of hardwood pulp may require that the Bureau contract directly with mills, as is being done on more southerly Public Lands.

b. A significant portion of the Unit's forestland currently supports mixedwood stands on sites more suited for growing softwoods. Management on these acres will encourage the stands to revert to softwood, through targeting hardwood species for removal. Most of these stands have sufficient softwood present in the lower height classes to produce a fully-stocked stand if these species are favored. A Unit-wide goal will be to maintain most of the present hardwood acreage, while obtaining a nearly even split between mixedwood and softwood types on the remainder.

c. Where softwood stands occur or have potential to be established, along watercourses in particular, these stands will be managed to produce and maintain continuous softwood cover on at least half of stand acres at any one time. This management, consistent with

production of high-value forest products, will also provide winter cover and travel corridors for deer and other wildlife species. Where deer winter use warrants, the Bureau will work with DIF&W to determine deeryard boundaries and proper timber management to maintain appropriate cover.

d. Most areas cut heavily during the past 20 years support dense seedling/sapling-sized stands of healthy young trees. Often these stems are too close together to make best growth, and may include some species not well suited to the site. Precommercial thinning with a brush saw will be prescribed for several of these areas, to promote development of high-quality timber. Most likely areas for this activity are on T16 R5 both north and south of Eagle Lake, and on T16 R6 in the Alec Brook drainage. A small acreage was done in 1985 within this latter area, where suitable patches are scattered throughout stands of taller trees.

e. Forest diversity on the Unit is very good at present, and current and future timber management will be designed to maintain it. Activities mentioned in b and c above are compatible with diversity maintenance, being designed to create a forest better suited to the site characteristics, and to establish and maintain specific wildlife habitats within a diverse mix of tree species.

3. Secondary Use

Wildlife habitat extends throughout the timber management areas, and is the principal secondary use. All timber operations will be coordinated with the staff wildlife specialist--particularly where potentials are highest for habitat improvements benefiting sensitive wildlife species. Recreation is also a secondary use in the timber areas. Coordination with the recreation staff will be geared towards consideration of the hunting, fishing, and related recreational interests.

4. Timber as a Secondary Use

On parts of the Unit, timber is a secondary use. Harvesting will be less intensive in these areas and timber production per acre will therefore be reduced. The objectives of harvesting will be to maximize the values of the other, more dominant use(s), rather than responding primarily to timber yield concerns. Since most of these acres are located in wildlife and/or visual consideration areas, selection systems will be the typical form of silviculture practiced--causing the least amount of change in the forest while developing high quality timber.

F. TRANSPORTATION (Refer to Map #6)

1. Description of the Resource

The Bureau has two broad categories of roads: public use and management. Public use roads are developed and maintained to higher standards than management roads, and adjacent activities such as timber harvesting takes into account visual considerations along all public use roads. Management roads are usually open to the public, but receive active maintenance only while being used for Bureau management purposes. These roads may be

blocked off, usually by pulling a bridge or culverts, where erosion or siltation is a concern or where herbaceous seeding has been done. Use may also be restricted to avoid conflicts with management activities, e.g. no hunting in amongst an active timber harvest, for safety reasons.

a. Access to the Unit

Access to the T16 R5 original public lots is via private roads leading in

Map #6

from Route 161 north of Cross Lake. Road access to the major part of the Unit also requires travelling over private lands. There are six significant access points to these 23,000+ acres; there is other historic road access but the important ones for planning are:

(1) North-central T16 R6 - This originates on the Sly Brook Road and crosses four miles of private land to access the northeasterly quarter of the town. The abutter to the north and the east uses this road as it crosses the Unit to access their lands--particularly their half of the 1986 blowdown--on T16 R5 west of Square Lake and north of Thorofare.

(2) Northwest corner T16 R6 - This road crosses a private tree farm. Though used in the past to reach lands northwest of Blake Lake, it is currently gated and probably unavailable. This presents little problem to Bureau management.

(3) West-center T16 R6 - This also originates on the Sly Brook Road, and travels about a mile on private ownership. This is the main access point to T16 R6 north of Eagle Lake, and is heavily used for both land-based recreation and Bureau management. The road is poorly ditched off the Unit, winding, and often too narrow for efficient snow-clearing, one of the reasons behind the traditional summer and fall only cutting north of the lake.

(4) West T16 R6, just north of lake - This road leads across land which is part of the Clover Hill Lodge property, originating at the south end of Sly Brook Road. The road is gated, and is currently used only for snowmobiling, including trail-groomers. Its availability for management use would open up year-round access to the bulk of the unit across less demanding terrain than #3, above.

(5) Southwest corner T16 R6 - This is the traditional access to the south part of T16 R6, and crosses Great Northern and several small private ownerships in the two miles between Route 11 and the Unit. Except in dry weather, that two miles is suitable for frozen-ground use only, and the bridge over Pennington Brook (located a few yards from the southwest corner of the Unit) is a temporary structure which is in place only during harvesting, which is all done in winter. This 15-20 foot wide watercourse is occasionally forded during low water, but the entire road system on T16 R6 south of the lake is of winter-only quality.

(6) Square Lake Road, T16 R5 - This is a high-quality gravel road leading in from the Caribou area, and crosses some 13 miles of private land. Although important for management purposes to the landowner, it also receives major use the campowners from the west shore of Square Lake. This is the only road access to the main portion of T16 R5, and will serve Bureau management activities on that part of the Unit.

b. Access Within the Unit

The extensive cutting history of the Unit has also meant extensive road construction, though most built more than ten years ago were of fairly low quality and have since deteriorated to four-wheel-drive tracks which will require considerable reconstruction for management use. Very little new road will need to be built on the Unit.

2. Dominant Use

As the Square Lake Road currently receives considerable recreational traffic related to campsite use, it will be managed to "public use" standards. These standards require visual consideration be given when conducting any adjacent management activities. All other roads within the Unit will be management roads.

As road access to the Unit currently requires passing over private land, the first goal for Unit transportation will be to ensure continued access. This may require several separate management strategies, which may include road use agreements, deeded rights-of-way, and/or acquisition. Any management decisions which impact these private roads, particularly decisions involving recreational development or access, must be preceded by contact with the landowners concerned.

The road system south of Eagle Lake and west of the Square Lake Road has always been winter-use only. This should remain the case, for several reasons:

- Soils dictate winter-only harvests on most of this area.
- Some of the Unit's better deeryard potential is along Bear Brook and toward Three Brooks, and should be operated in the winter.
- Adequate winter-only roads are in place; upgrading to summer quality standards would require high financial investment and extensive gravel-mining.
- Keeping recreational access relatively difficult allows the Unit to offer a greater variety of hunting/fishing experiences, as the Square Lake Road and extensive gravel road system north of Eagle Lake permit easy access to much of the Unit.

MAP #7

3. Gravel

There are no known gravel deposits within the Unit, save for some along the Thorofare which are not available for use because of Bureau management standards. However, soft-ledge areas are common north of Eagle Lake, and have been utilized for most roadbuilding. Further exploration is needed for road-maintenance material; as per Bureau policy these will be used only within Public Lands, not sold commercially.

SECTION V ADMINISTRATIVE CONCERNS

This section addresses several topics which are essentially administrative in nature, yet which have an effect on resource management programs.

A. Camplot Leases

There are currently six camplot leases located on the Unit, all lakeside, four on T16 R6 and two on T16 R5. The lessees are all currently doing a fine job in maintaining their camps. These leasehold interests will be honored by the Bureau as long as the terms of the lease are met by the lessees. In keeping with Bureau policy, no new camplot leases will be allowed on any of the Public Reserved Lands.

B. Michaud Camp

This sporting camp complex consists of 18 log buildings on leased land located on the tip of the peninsula at the mouth of the Thorofare, one of the most attractive spots on the Eagle Lake shoreline. Up until 20 or so years ago, during the time when the "rustic but genteel" sporting experience was in great demand, these camps drew clientele from distant areas, and consequently received frequent maintenance and repair supported by funds paid by the many visitors. More recently, the use has been lower, and usually limited to spring time anglers and hunters in the fall. The buildings have fallen into various states of disrepair, partly because the camp clientele is no longer sufficient to fund major maintenance, partly due to age--some are over 100 years old.

The current lessee has made some repairs to five or six buildings during the past two years, working first on those in the best shape. A more significant restoration effort is planned for 1990. This would allow most of the cabins to remain an important part of the recreation and history of the unit. As with the individual camplot leases, this lease will be honored by the Bureau as long as its terms are met by the lessee.

C. Clover Hill Lodge

This property extends from the public road to the Unit boundary, but has not been available for vehicle access (except snowmobiles) in the past. The Bureau will explore the possibility of

obtaining a right-of-way of some type, to provide improved access to the adjacent section of the Unit.

D. Bear Baiting

This activity, the placing of food in the woods to attract bear toward hunters, is increasing at a rapid rate, due in part to the new fee structure within nearby North Maine Woods. With heavy demand for sites within a limited landbase, the potential for conflict among those placing baits is growing. The Bureau is currently working on guidelines for dealing with bear-baiting on all lands under its management. These guidelines will address potential problems, both social and biological, connected with this use.

VI SUMMARY OF MAJOR ACTIONS AND DECISIONS

A. Special Protection

1. Work with botanist and other specialists to identify possible rare plant sites of other unique vegetation and wildlife. (See pages 11 and 12).

B. Wildlife

1. Develop extensive stands of softwood in well-distributed age groupings, or "classes". (See pages 16 and 17).

2. Maintain vegetative diversity, especially in riparian areas. (See pages 19 and 20).

3. Work with DIF&W to remove inactive beaver dams, where appropriate, to increase spawning habitat for smelt. (See pages 20 and 21).

4. Investigate needs for nestbox installation. (See page 20).

C. Recreation

1. Maintain semi-remote character of Blake Lake by allowing the current access road to deteriorate and by keeping future management roads at least 1/4 mile away. (See page 24).

2. Establish new water-access campsites on Eagle Lake, adding no more than two per year, to a total of 10 or 12. Re-establish the old campsite on Rocky Point on Square Lake. (See pages 26 and 27).

3. Block off the two informal launch sites at the east end of Eagle Lake; provide parking for those wishing to hand-launch small watercraft from the drier, westerly site. (See pages 27 and 28).

D. Visual Consideration

1. If demand for hiking leads to additional trail development, add visual consideration areas to the plan as appropriate. (See pages 30 and 32).

E. Timber

1. Improve overall quality, especially in hardwoods, taking advantage of somewhat improved markets for low-quality timber. (See pages 33 and 36).
2. On sites most suited for growing softwoods but which now contain mixedwood stands, promote the reversion to softwood types. (See pages 33 and 36).
3. On sites best suited for softwoods, especially those along watercourses, manage to produce stands of sufficient softwood height, canopy density, and stand acreage to provide winter cover for deer and wildlife travel corridors. (See pages 36 and 37).
4. Develop high-quality young stands through intensive management of the plentiful natural regeneration, using pre-commercial and careful commercial thinnings to ensure that the best trees have room to grow. (See pages 36 and 37).
5. Maintain or increase the current vegetative diversity. (See pages 36 and 37).

F. Transportation

1. Ensure continued access over private abutters through road-use agreements, deeded rights-of-way, and/or acquisition. (See pages 39, 40, and 41).
2. Maintain the road system south of Eagle Lake and west of the Square Lake Road as winter-only. (See page 43).

G. Administration

1. Monitor improvement of Michaud Camps by lessee (see page 43).
2. Explore right-of-way agreement to cross Clover Hill Lodge property (see page 44).
3. Prepare and implement guidelines regulating bear-baiting (see page 44).

APPENDIX 1

GLOSSARY

1. Allowable Cut: The number of acres which can be harvested annually, for long-term, sustained yield timber production.
2. Backcountry: Remote areas with exceptional natural features and allocated for primitive recreation as the dominant use. These areas are typically large in size. Management is characterized by no public vehicular access, dispersed use, minimal recreational facilities, with harvesting (where permitted) by uneven-aged methods only, designed to retain the natural character of the area and minimize conflicts with recreation use.
3. Crown (or Canopy) Closure: Measure of the completeness of space reduction between the tops (foliage and branches) of adjacent trees.
4. Cutting Cycle: The interval between harvest operations in uneven-aged management.
5. Endangered Species: A Maine endangered species is a plant or animal species in immediate danger of extirpation from Maine due to critically low or declining numbers brought about by habitat loss or degradation, over-exploitation, pollution, disease, or other factors.
6. Edge: The place where plant communities meet or where successional stages or vegetative conditions within plant communities come together.
7. General Recreation: Areas typically accessible by vehicles and allocated for recreation as the dominant use. Management is characterized by moderate intensity use, including: picnic tables, firerings, pit privies, vehicle parking (on-site or relatively nearby), and a featured attraction(s) -- typically, a body of water. Harvesting will be directed towards aesthetic and safety considerations only.
8. Mast: Nuts and/or fruits which are utilized as food by wildlife. Apples are an example of soft mast, while beech nuts are a characteristic hard mast.
9. Old-Growth: For the purpose of this document, a stand of trees which is beyond the age of biological maturity.
10. Regeneration: Both the process of establishing new growth and the new growth itself -- occurring naturally through seeding or sprouting -- and artificially by planting seeds of seedlings.
11. Regulated Forest Acreage: That portion of the commercial forest landbase on which the annual allowable harvest is calculated.

12.Release Cutting: Any cutting operation designed to remove competing vegetation from or establish proper spacing intervals among desired trees.

13.Remote Recreation: Semi-remote areas containing significant natural resource features and allocated for primitive recreation as the dominant use. These areas vary in size. Management is characterized by no public vehicular access, dispersed use, and rustic recreational facilities. Integrating secondary uses is less restrictive than doing so in a backcountry.

14.Rotation: The age at which stands of timber are harvested for particular economic or silvicultural objectives.

15.Selection: Related to uneven-aged management, the cutting of individual or small groups of trees; generally limited in area to patches of one acre or less.

16.Silviculture: That branch of forestry which deals with the application of forest management principles to achieve specific objectives with respect to the production of forest products and services.

17.Site Quality: That combination of environmental factors and species requirements which serve to measure how well a particular tree species will become established and grow on a given area of the forest.

18.Stand: A group of trees, the characteristics of which are sufficiently alike to allow uniform classification.

19.Stocking: The amount of trees in a given area as compared to the amount desired for the desired system of management.

20.Sustained Yield: The amount of timber that a forest can produce continuously within a given system of management.

21.Threatened Species: A plant or animal species not as critically jeopardized by extirpation as an endangered species, but will probably become endangered if current population levels experience further declines.

APPENDIX 2

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APPENDIX 3

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